



# NAVRIP

## AIRSpeed

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Naval Aviation Readiness Integrated Improvement Program

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## NAS Whidbey Island Flexes with NAVRIIP's Shift in Focus

By Betsy Haley

NAVRIP Communications Team  
and NAVAIR Public Affairs

Three years ago, NAVRIIP began its readiness journey with visits to Naval Air Station (NAS) Oceana, Va., Naval Station Mayport, Fl., and NAS Whidbey Island, Wa., with a focus on improving non-deployed readiness and resolving site-specific issues. Since then, NAVRIIP has shifted the emphasis to cost-wise aircraft ready for tasking (A-RFT). When NAVRIIP senior leadership returned to Whidbey in late October, they found the workforce committed to supporting new programs and new directions for the EA-6B type/model/series (TMS).

"We are improving readiness much differently than we did three years ago," said Vice Adm. Wally Massenburg, commander of the Naval Air Systems Command and Naval Aviation Enterprise chief operating officer. "Based on the visits to Whidbey Island, Oceana and Mayport, NAVRIIP leadership decided to change the site-specific focus to a TMS focus. We thought we had it right in the beginning, but we were wrong. We have it right now."

There are some important changes. NAVRIIP now recognizes the wing commodore as the single process owner for each specific TMS. Also, leadership triads were established to optimize A-RFT, consisting of the wing maintenance officer (wing MO), aircraft intermediate maintenance detachment (AIMD) officer in charge (OIC) and the wing supply officer. The triad members share concerns and requirements with NAVRIIP provider organizations (cross-functional team 2) and NAVAIR's program management offices for each TMS.

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## NAE Leaders Commit to Partnering Effort

The Naval Aviation Enterprise (NAE), led by Vice Adm. James Zortman, Commander, Naval Air Forces and NAE Chief Executive Officer, comprises key Naval Aviation stakeholders and decision-makers. NAE leaders are committed to a dynamic partnering effort that will synergistically advance the relevance, efficiency, and readiness of United States Naval Air Forces.

**The NAE mission is to deliver the right force, at the right readiness, at the right cost, today and in the future.**

To accomplish this mission, the NAE will:

- ◆ Prioritize capabilities, define requirements, efficiently acquire and properly prepare relevant and optimally sized Naval Air Forces that satisfy our nation's warfighting needs
- ◆ Operate with a common set of linked processes, each having an owner, set of metrics, and an action plan that drives continuous improvement

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## eRIIP Enables Quick Readiness Decisions

Interview with Tracie Kuchark-Owens  
NAVAIR eRIIP Program Manager

### Please explain the basics of eRIIP and how the system works

The Electronic Readiness Integrated Improvement Program (eRIIP) is an automated system for data collection, analysis, and reporting of NAVRIIP metrics. The system permits decision makers within the Naval Aviation Enterprise (NAE) to make quick readiness decisions.

eRIIP is a web-based display of automated NAVRIIP Cross-Functional Team (CFT) metrics, created with the goal of integrating a variety of Naval Aviation logistics readiness data into a single data source. A majority of the collected data is transactional, and each piece is considered a data element. The program allows users to drill down to view additional information for a specific base, air group and aircraft type/model/series (TMS). eRIIP incorporates a streamlined process for data collection, analysis and reporting of metrics. As an automated system it allows immediate access to data for analysis by Naval Aviation leaders via a secure website.

### What is the history of eRIIP?

Initially, eRIIP was intended as a web-based system where all data would migrate. The purpose of a unique single data collection source was to give TYCOMs and squadrons the ability to build cockpit charts (CpC), which are used to make Naval Aviation readiness decisions. Also, NAVRIIP leadership and TMS teams required a consistent and user-friendly program to collect data and access it whenever required. eRIIP was designed to meet these needs and to streamline the data collection and reporting processes.

### Who created eRIIP?

The NAVAIR Information Systems and Tools program office teamed with Lockheed Martin to design the eRIIP program.

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Naval Air Station Whidbey Island, WA. AD2 Gerald McGee wires a J-52 P-408B jet engine as part of final assembly. Photo by AD (AN) David Hudgens

# F/A-18 Program Incorporates NAVRIIP Improvements

By Denise Deon, Public Affairs Officer

NAVAIR Program Executive Office for Tactical Aircraft Programs

NAVRIIP's purpose is to improve readiness across the Fleet by bringing personnel together to focus on common key issues and work towards developing enterprise solutions and cross-functional tools. The NAVAIR F/A-18 and EA-18G Program Office (PMA-265) is heavily engaged in NAVRIIP across several different areas and is incorporating the program into many efforts.

"It used to be that everybody did 'their own thing'," said Cmdr. C.J. Jaynes, PMA-265 Fleet Support Deputy Program Manager. "The F/A-18 Program Office had its own set standards of conducting business, and the Fleet was doing it their way. Now we have NAVICP, the Fleet, the TYCOM, the wings, and the program office—everybody—working together to resolve issues."

The F/A-18 Type Model Series team (TMS) is one of the areas in which NAVRIIP is being incorporated. The team meets twice a month with the Fleet Commodores, the F/A-18 program office and NAVICP. The F/A-18 Marine Squadrons, MALs 11 and 31 (Marine Aviation Logistic Squadrons), are also involved. The usual items discussed concern ready-for-tasking aircraft (RFT) and pilot reports. The object of the meeting is to make sure that Fleet needs are met, enabling them to carry out their mission successfully.

"If there is an issue where they don't have enough RFT aircraft, then it's our responsibility to make sure they get what they need," says Jaynes. "Our job is to make sure we use our resources effectively to meet the Fleet's needs."

The F/A-18 and EA-18 G Program Office is leading the way on another NAVRIIP concept called Product Enterprise Teams (PET). The teams' objective is to take a specific system and evaluate how it can be improved. Cost-wise readiness plays a major role in the program office's use of NAVRIIP's specific teaming—in particular, aligning maintenance capabilities with location and finding the smartest way to perform these functions. During the cost-wise readiness team meetings, participants are asked not to accept the norm, but to re-evaluate systems and challenge processes.

"For instance, you take a radar system and look at everything associated with it individually. You look at the publications, the maintenance plan, the supply chain and the repair process," explained Jaynes. "The objective is to see if it's being repaired efficiently and effectively. In other words, are we repairing at the depot when the Aircraft Intermediate Maintenance Department (AIMD) can actually do it? Can the squadron do the repair? Is there a reliability issue? We're looking at every single aspect of a system and trying to make it better."

"NAVRIIP is a total command responsibility," says Jaynes. "It can't just be one group worrying about it. It has to be everybody from the three-star admiral all the way down to the airmen on the

deck. Everyone has to be engaged, actively engaged, and working the process in order to achieve the mission."

For more information pertaining to the F/A-18 program office, contact Denise Deon Wilson, Public Affairs Officer for PEO-T, at 301-481-6263, or [denise.deon@navy.mil](mailto:denise.deon@navy.mil).



Pacific Ocean - An F/A-18 Hornet makes its final approach to the flight deck aboard the aircraft carrier USS Kitty Hawk (CV 63). The F/A-18 is an all-weather attack aircraft that can also be used as a fighter. U.S. Navy photo by Photographer's Mate 1st Class Aaron Ansarov (RELEASED)

## AIRSpeed Tools

**Theory of Constraints (TOC)** is the Enterprise AIRSpeed architecture process improvement and systems thinking skill based on the belief that any organization has at least one constraint and that any improvements on non-constraints may not yield as significant return on investment as working on the constraint.

**Advanced Theory of Constraints (ATOC)** is the application of market-demand pull supply-chain management based on Enterprise level TOC. In the current system, components and parts are "pushed" to the end users. In the aircraft intermediate maintenance activity's, components are inducted regardless of whether they are required. In the "pull" system, actual flight-line demand (operational requirements) and the time it takes to reliably replenish dictates inventory buffer levels and times to induct components into the repair process.

**Basic Theory of Constraints (BTOC)** is a process improvement tool under Enterprise AIRSpeed based on TOC principles that is applied at aircraft intermediate maintenance departments, aviation supply departments and Marine air logistics squadrons. It represents a change of mindset from a focus on fixing everything to focusing on those things that increase readiness now and in the future.

**Lean** is a process improvement strategy that focuses on the ability to make everything, everyday in the exact quantity required, with no defects. The goal is to achieve perfection through the total elimination of waste in the value stream of the process. Lean uses incremental improvement to constantly expose waste to balance operational and standard workflows. Most notable examples are the supply chains established by Toyota and Honda.

**Six Sigma (6s)** is a process improvement strategy that is based on the assumption that the outcome of the entire process will be improved by reducing the variation of multiple elements. 6s is uniquely driven by a close understanding of customer needs, a disciplined use of facts, data, statistical analysis, and diligent attention to managing, improving, and reinventing business processes. 6s focuses on variation reduction to produce highly repeatable processes that create customer satisfaction. 6s is a measure of variability in relation to a total population of numbers.

For more information, link to the Enterprise AIRSpeed Website - <http://logistics.navair.navy.mil/airspeed/index.cfm>.



## **Capt. Michael Hardee, AIRSpeed Project Manager, NAVRIIP Chief of Staff, discusses recent AIRSpeed Simulations**

**Please briefly explain the AIRSpeed simulation, and for whom it's applicable.**

The AIRSpeed Simulation was conducted during the recent AIRPAC and AIRLANT Commander's Conferences. Both Vice Adm. James

Zortman (our AIRBOSS) and Rear Adm. Denby Starling presided over the simulation on their respective coasts.

The ultimate audience for the simulation is the AIRBOSS and his commanders.

"The AIRSpeed simulation allowed fleet commanding officers to experience and understand the business interactions between the fleet operators, maintainers and vendors at each level. I was very impressed by how closely the exercise mirrors the real, day-to-day operations within the Naval Aviation Enterprise," Vice Adm. James Zortman, Commander, Naval Air Forces and Naval Aviation Enterprise (NAE) Chief Executive Officer.

The goal for the participants is to represent their respective organization in the NAE and to understand how to achieve the M rating. The M rating is the mission achievement goal in order to attain required levels of training. Also, we give participants the opportunity to apply the process improvement tools used in AIRSpeed, such as Lean, Six Sigma and Theory of Constraints (TOC). We explained Six Sigma but most of the simulation addresses Lean, TOC, process improvement and cycle time reduction.

### **How is the exercise conducted?**

Each simulation includes 60 to 70 commodores, commanding officers (COs) or assistant commanding officers. The participants are equipped with paper airplanes to simulate real aircraft and squadrons. The group is divided and assigned to a specific level within the NAE organization—operations, the aircraft intermediate maintenance department (AIMD), supply or the depot.

During the simulation, we establish several squadrons and AIMDs, while also utilizing transportation runners to represent the movement of parts, and a vendor represents the original equipment manufacturer (OEM). Also, individuals represent COs from CNAF, NAVAIR and the depots to realistically depict current daily activities.

The squadron groups fly, fix and operate the airplanes to achieve their M rating, while simulating major repairs in the depot and ordering and shipping parts. At the end of each of the three rounds of the exercise, each group presents a status report to the role players (CNAF and NAVAIR) on the readiness rates, aircraft ready for tasking metrics and the M ratings, and operational costs.

### **What is explained during each round of the exercise?**

When we have learning periods in between each round, the first round explains NAVRIIP; the second round explains Lean in the context of NAVRIIP and AIRSpeed—how to apply it and the best cases in which to apply it; then in the third round we discuss the improvement tools—TOC, Lean and Six Sigma.

### **What is the main purpose of the simulation?**

The purpose is to expose maintainers, supply officers and operators to the entire enterprise from "O" to Supply, as well as to AIRSpeed tools and the interactions that occur in the NAVRIIP process. In order to better understand the environment, participants develop their own process improvements and apply rudimentary Lean principles.

The groups become more efficient and effective as the rounds progress, since the exercise is very interactive. They actually begin to achieve M ratings, and many of them get below their costs. The simulation depicts aircraft breaking and then being repaired. As in real life operations, airplanes also flew well, and they achieved their M rating. In some cases the groups over-achieved the M rating, which becomes very expensive.

The groups conducted the same types of events that participants during a NAVRIIP Readiness Improvement Team meeting would observe, such as a type/model/series commodore brief and explanations of cockpit charts. It is a very real depiction of real-life interactions.

### **What struggles do participants express throughout the phases of the simulation?**

During the first phase, participants struggle to understand their roles, the rules of the game, their responsibilities, and getting the squadron group organized. These struggles are typical during real-life processes. So the simulation helps them organize their thoughts and understand how to apply the principles in real-life operations.

In order to remain conscientious about cost-wise readiness and making the M rating, a lot of people figured out by the end of the first round what they needed to do in their next round. They realized they needed to concentrate on not just making RFT but also achieving the M rating. And if the groups achieved the M rating, they needed to do so within the cost parameters.

### **How successful would you consider the simulation?**

Afterwards, participants from both coasts came to me to say they were non-believers in playing the paper airplane simulation at first. But, they got it, and it was a very worthwhile exercise in understanding the interdependencies in the NAE.

The simulation actually demonstrates to the operators, maintainers, and supply officers that they have an ability to change their own processes at will in order to achieve the end result, which is cost-wise readiness and achieving the M rating. A lot of people came to me and actually articulated that they now understood this concept. For the most part after the simulation, they wanted to know more about how the process improvement tools can be translated to their shops.

### **Who is responsible for designing the simulation?**

Robin Goebel, NAVRIIP Deputy Chief of Staff, designed the simulation. Other NAVRIIP Staff members, several reservists, and I fleshed out the simulation exercise to make it as authentic as possible, with realistic types of events that help make it challenging.

Ideally, to conduct the simulation properly requires four hours. Some completed the exercise in less time, depending on the group's level of sophistication and knowledge of AIRSpeed and NAVRIIP.

For more information on the AIRSpeed Simulation, contact Robin Goebel by calling 301.757.9970 or robin.goebel@navy.mil.



# RAMP Enhances Forecasting Capabilities for Aviation Maintenance Community

By Lt. Cmdr. Bill Edge

NAVRIIP Communications Team

Maintenance managers within the Naval Aviation Enterprise have come to rely heavily on numerous tools for planning and coordinating various activities required to resource, develop, deploy and sustain weapons platforms. Typically these tools and applications were developed in the normal stovepipe method—focused specifically on a single purpose. While some were developed with interface requirements in mind, many were not. As more of these tasks got automated, leadership realized the critical need for data integration.

The Resource Allocation Management Program (RAMP) is the culmination of an enterprise integration effort initiated within NAVAIR's Logistics Integration Office (AIR 3.1). Initially fielded for the F-14 Tomcat, RAMP was created to provide a common program logistics tool to enhance long range planning and forecasting for the aviation maintenance community. It provides a common database that links aircraft inventories to budgeting, modifications, configuration, and maintenance within an operational environment.

The end goal is to have RAMP replace the old stovepipe aviation data applications and provide an integrated report environment. Where aviation data tends to lag in real time, RAMP provides real-time data in a secure environment on the desktops of authorized users. Program managers, fleet support teams, depot planners, type commanders and wing maintenance officers will all use RAMP as a single web-accessible repository.

RAMP current and planned future functionality includes:

- ◆ Operational Support Planning: scheduling of aircraft modifications,

budget requirements, budget “what if” drills, and scheduling of aviation ship modifications.

- ◆ Depot Workload Planning: Depot workload scheduling, field modification scheduling
- ◆ Inventory Management: aircraft on flight line, aircraft allocation/drills, retirement schedules/drills, inactive aircraft, engine and component tracking
- ◆ Operational Requirements: Aircraft operational capability, aircraft inventory, deployment planning, and mission kit allocations.

Since its introduction to the fleet with the F-14 platform in 1997, RAMP has evolved and gained senior leadership support. The EA-6B, AV-8B, H-60, and P-3 programs quickly followed the F-14 RAMP. In FY03, RAMP was implemented into the E-2C/C-2, S-3B, and into the H-3, H-1, H-46 and H-53 programs because of a Congressional increase for the expansion of RAMP into rotary wing aviation. Additionally, the V-22 and F-18 programs have committed and are scheduled for future development.

Ultimately, RAMP will become a common maintenance management tool, providing single integrated data. Current platform sustainment is accomplished through multiple contract vehicles. RAMP will consolidate these contracts into one sustainment package with the potential of saving upwards of \$3 million dollars in terms of data management, FRP planning, ADP hardware, and manpower.

For more information about RAMP, contact AMCS(AW) Jeff Minghella by calling 301.757.9133 or DSN 757.9133.

## NAE Mission and Goals (Continued from page 1)

- ◆ Use performance and financial metrics as a common Enterprise language. We will install processes that are repeatable, agile and predictive.
- ◆ Execute a Continuous Improvement Program designed to define, measure, improve and control Naval Aviation Enterprise processes, including human capital, acquisition, training, and material readiness.

The measures of success for the NAE are:

- ◆ Achieving 100% aircraft ready for tasking goals across the NAE
- ◆ Achieving measurable savings across the NAE in the following areas:
  - ◆ Acquisition
  - ◆ Training
  - ◆ Logistics and Maintenance
  - ◆ Facilities

The goal in achieving these savings is to maximize available resources for the Department of the Navy.

NAE is managed by a board of directors (BOD) made up of members from across Naval Aviation. Three cross-functional teams (CFTs) will execute NAE goals by targeting specific improvement areas. Two teams, communications and metrics, will support the BOD leadership with their efforts.

- ◆ The *Readiness/NAVRIIP CFT* is led by RADM Denby Starling, Commander, Naval Air Forces, Atlantic Fleet.
- ◆ The *Training CFT* is led by RADM George Mayer, Chief of Naval Air Training and Commander, Navy Region South.
- ◆ The *Finance CFT* is led by RADM Thomas Kilcline, Director Air Warfare Division.

For more information on the NAE, contact NAVAIR Public Affairs by calling 301.757.1487 (DSN 757.1487)

**The 2005 NAE/NAVRIIP schedule will be finalized soon. Please link to the NAVRIIP/AIRSpeed website for the new schedule - [www.airpac.navy.mil/navriip](http://www.airpac.navy.mil/navriip). For more information, call NAVAIR Public Affairs by calling 301.757.1487.**

### NAE/NAVRIIP December 2004 Schedule

1	CFT 2	VTC	HM – PAR 1430-1600 EST
8 – 9	Flag Brief	Beaufort, SC	MCAS Beaufort
9	NAE	VTC	VFA, VF F/A-18
16	CFT 1	VTC	VAQ, VRC-TRW 1300-1600 EST

**What types of reports are created using eRIIP? How are these same reports crucial to the success of NAVRIIP and TMS teams?**

CFT1 readiness and CFT2 provider organizational status are captured in Cockpit Charts (CpC), using predetermined measurable attributes. The CpCs share a crucial element in the functionality of eRIIP as they provide senior leaders a quick and easy way to view the health of an air wing or individual squadron. Each CpC contains the essential data and operational capabilities for senior Naval Aviation leadership and TMS teams to monitor the readiness of the air wings and squadrons. In addition, the CpC's provide data by which to address the readiness challenges displayed through eRIIP and to help redefine Naval Aviation business processes.

Through use of the CpC's, Naval Aviation managers are provided straightforward and consistent methods for accessing and monitoring current metrics for readiness capabilities, depots and cost. The information also enables aviation managers to rapidly identify barriers and implement solutions to improve readiness.

**Is the eRIIP data collection method an improvement on previous ways of collecting data?**

The old data collection method was a manual process. After the squadrons collected and entered all the data, charts and graphs representing the metrics were generated. The manual process was slow, cumbersome, and unreliable. Now, more time is spent on analyzing the information rather than inputting the data and generating charts/reports.

**When do you anticipate Naval Aviation Enterprise-wide use of eRIIP?**

The CFT2 CpCs are already available on <https://eriip.navair.navy.mil>, and the CFT1 CpCs are scheduled to be available for all TMS by April 2005.

**How is eRIIP helping to improve daily work for Sailors/Marines involved with NAVRIIP?**

In the past, squadron personnel collected data from various sources and manually compiled it into spreadsheets better known as data transfer sheets (DTS). The process was not standardized and was very labor-intensive. Before eRIIP we had no automated data analysis capability. The new eRIIP process enables users to spend more time in data analysis, rather than data collection and chart development. eRIIP also helps identify levels of deployed and non-deployed air wing readiness during the interdeployment training cycle, using consistent processes for data collection, analysis, and reporting of the eRIIP metrics.

**What initial concerns do Sailors/Marines have when they first learn how to use the program?**

Initially, users are concerned with the timeliness of data. We also receive questions regarding users' ability to manipulate the data represented and/or understand the sources of data used to populate eRIIP. Using the tool is intuitive for most, but the methods of data collection and the ability to influence the source from which eRIIP pulls data is not understood by all.

**What problems do users encounter, and how are the issues being resolved?**

The primary problem is data entry errors. Because data entry is manual, this can lead to human error and problems. Over time, users become more comfortable with the program and more at ease with the process. Also, the eRIIP program office is developing additional tools based on Fleet input. Marine Corps Aviation and Naval Reserve Aviation data will be available soon.

**How do Sailors/Marines learn about eRIIP?**

Training is provided for each CFT, with additional training available via the eRIIP website by accessing the training tab on the left of the webpage. This provides training on the eRIIP tools. New users need additional training on the methods (or sources) for data collection and reporting. For specific training requests, contact me directly.

**How does the eRIIP program office remain engaged with those in the Fleet who use it (e.g., squadrons, TMS teams, CFTs)? Is there a formal feedback process in place to address new issues and concerns?**

I actively participate in meetings to engage with the Fleet and their concerns and establish a line of communication between the users and the eRIIP office (including direct access to the eRIIP development team). The eRIIP team thus can communicate with the Fleet daily. A formal process has also been established to report problems or feedback through integrated data environment (IDE) action chits. The IDE tracker reports problems or makes suggestions for any of our applications. Once an action chit is submitted, you can check its status from the site.

To link to the IDE tracker, link to <http://logistics.navair.navy.mil/ide/tracker/index.cfm>. For all problems or concerns, users and the Fleet are encouraged to contact me directly. I will personally work each issue until it is resolved.

**Where can Sailors/Marines learn more about the program?**

Anyone may contact me directly for more information about the program: Tracie Kuchark Owens, eRIIP Program Manager, (301) 757-1020 or DSN 757-1020 – [tracie.kucharkowens@navy.mil](mailto:tracie.kucharkowens@navy.mil) or eRIIP Web site: <https://eriip.navair.navy.mil>.

## NAVRIIP University Update

**NAVRIIP University Training Session Still Available for 2004:  
December 7, Joint Reserve Base, Dallas, Texas**

*"Attending the NAVRIIP University session was a great learning experience. I wish I had this training before I served as the AIMD officer." – NAVRIIP University Participant*

The NAVRIIP 101 basic overview course is a one-day training session, which focuses on the processes, tools and applications available in the NAVRIIP and AIRSpeed toolkits. Any employee assigned to units participating in NAVRIIP and AIRSpeed activities will learn quickly how to become an effective member of the team in support of the initiative. Members of the NAVRIIP management team and the Thomas Group, a consulting company with expertise in process management, will teach the course. The training will introduce NAVRIIP and AIRSpeed history, the charter and organization, an overview of the processes, tools, teams and success stories.

Employees will learn about process value management tools, which address dynamic cycle time, and best business practices, including a focus on Theory of Constraints, Lean and Six Sigma. The training will also explain the aviation financial analysis tool (AFAST), and cross-functional team and type/model/series team participation.

For registration and course information, contact the Thomas Group by email at [dbeachum@thomasgroup.com](mailto:dbeachum@thomasgroup.com), or by calling 972.401.4276. Additional sessions will be added if demand exceeds the current schedule. *The 2005 dates will be available soon.* Please check the NAVRIIP website for updates at [www.airpac.navy.mil/navriip](http://www.airpac.navy.mil/navriip).

# MALS-12 Implements Better Business Practices

By MGySgt. Billy Stewart

Aviation Supply Chief, Headquarters Marine Corps and NAVRIIP Communications Team

Marine Aviation Logistics Squadron (MALS) 12, aboard Marine Corps Air Station (MCAS) Iwakuni, Japan recently went through Basic Theory of Constraints (BTOC) training, and is well on the way to implementing better business practices to improve readiness levels.

Recently, MGySgt Douglas Rosenberg, occupational field sponsor for the avionics military occupational specialties (MOS), was able to provide valuable training to MALS-12. His journey to the “Land of the Rising Sun” uncovered some great training and stellar Marines. The following is a brief interview with MGySgt Rosenberg.

**MGySgt Rosenberg, you recently had an opportunity to visit Iwakuni, Japan. For the benefit of our readers, please introduce yourself and give a brief overview of your mission.**

I am assigned to Headquarters Marine Corps, Department of Aviation, and serve as the Occupational Field Sponsor for the Avionics Military Occupational Specialties (MOS). I am fortunate enough to be on a team of Marines working to revolutionize the way we provide support to enhance aircraft readiness, in part by using the program known as *AIRSpeed*. I was asked to participate in the Basic Theory of Constraints (BTOC) training for MALS-12. BTOC is the one of the tools in the *AIRSpeed* toolbox, and when presented first, it prepares the unit for the follow on Advanced Theory of Constraints (ATOC), Lean and Six Sigma training. My mission was to present this toolbox and assist the unit in the implementation of the tools.

**At this point, where is MALS-12 in the training process?**

MALS-12 is currently in the “constraint identification phase,” which entails mapping and monitoring their current process. Using metrics/goals set by the various supply and production divisions, MALS-12 is identifying the focus areas for process improvements.

**What was the plan of attack upon your arrival in country?**

We arrived to provide the initial phase of the *AIRSpeed* training process, the BTOC phase. Senior leadership and managers take a 2-day training class. The training includes an overview of the “production line simulator”. Then, we teach how to properly build a logic tree, which helps to identify the constraints in their production lines.

**Logic trees play a huge part in the success of the program. Describe the assistance you provided the squadron.**

Our team spent an entire afternoon with senior leadership to help them draw out their “top-level” goals. Once they came to a mutual decision as to their unit goal, we proceeded to map out the processes they were currently using. We used logic tree design lessons to build a list of items determined necessary to reach the goals. Then, we chose 3-to-4 that most directly impacted the goal and subordinated the items. As we built each “level of the tree,” we assigned ownership of that process to an individual. Each individual’s process was assigned minimum metrics. We repeated the process and eventually reached the end of the list, building a “logic tree”. The tree was analyzed to determine if all metrics are necessary and sufficient to support the goal. Once put into motion, all personnel will understand that these metrics must be met to reach the goal. After the trees are built, we enter the data into a software tool called Relevant Information For Leadership (RIFLe), which is used to help monitor progress and measure the level of success or failure of each metric.

**As we both know, the transition to *AIRSpeed* requires that Marine senior leadership embrace the concepts at the squadron level. Were**

**you able to spend quality time with the senior leadership of MALS-12?**

Please let me point out that this is not a “transition to *AIRSpeed*.” *AIRSpeed* is a philosophy to utilize better business practices to improve aircraft readiness across the NAE, and it is also the first step towards a modernization of the current Marine Aviation Logistics Support Plan (MALSP). Yes, senior leadership spent time with our team. I personally spent most of my time with the production control officer and the aviation supply officer. Their relationship in the MALS is the most critical to the command’s success and in turn, affects overall aircraft readiness. MALS-12 wholeheartedly embraced the concept of continued process improvement. They were ahead of the training as the group was already looking at ways to “speed up the processes” being used.

**What are some of the strongest attributes of MALS-12 as they use the *AIRSpeed* business practices?**

The strongest attribute MALS-12 demonstrated is their intrinsic ability to understand the requirements needed to support multiple type/model/series aircraft at different geographic locations, without dedicated transportation to move components throughout the theater. This requires “out of the box” thought processes. We want to get them out of their comfort zone and reach for new goals. The current team of leaders is very supportive.

**Many leaders feel that there should be a permanent billet assigned to each squadron as an *AIRSpeed* Coordinator. What are your views on this?**

In my opinion, there is definite value added to have one person to evaluate the unit’s logic trees and ensure metrics are entered in the software. I believe that an *AIRSpeed* coordinator should be in place to perform duties as the RIFLe administrator until all current personnel have received BTOC training. Once the entire unit has been trained to the 85 percent to 90 percent level, the coordinator should hold a class every quarter to train new personnel, and to provide training on an as needed basis.

**Finally, what would you consider the most important aspect of the training that you provide?**

Important aspects of the training are different for everyone. Each member of our team has a different value system as an individual, but as a team, we understand the results of the *AIRSpeed* philosophy as contributing to increased aircraft readiness, at reduced resource cost. Our training provides the impetus for practical application of better business practices, progressive self-assessment, communication, innovative ideas at the ground level, and documentation of barriers identified and removed.

When a Marine or Sailor feels the pride of ownership, the empowerment to make a decision and to correct a situation on their own, I see growth, and a new group of developing leaders. These men and women are the future and without them we fail. Without the youth, vigor and fresh ideas, we stagnate. Training them to think for themselves makes us a better Marine Corps and overall Naval service.

As for the Marine, or Soldier, who is on the ground in harms way waiting for the air strike to arrive, it means more, much more.

**Master Guns, with Marines like you leading the charge for enhanced aviation logistics, anyone awaiting air support need not worry. Thanks for your time and providing some great insight and counsel for the fleet.**

**Semper Fidelis.**



“After the first visit by NAVRIIP leadership, we placed a greater emphasis on utilizing the triad in an effort to work together for problem solving from the EA-6B community perspective,” said Cmdr. Kate Erb, AIMD OIC. “We now focus on producing the right number of A-RFT at the right time.”

As the evolving NAVRIIP and AIRSpeed methodologies spread through AIMD Whidbey Island work centers, several maintenance divisions demonstrate improved processes and workflow.

### **J-52 P 408 Engine Production Shop**

Under the leadership of AZ2 (AW) Jacob Flowers, AIMD 400 division and AIRSpeed team leader, the J-52 Lean implementation team has applied AIRSpeed concepts to the engine production shop.

“The largest improvement is the new layout and organization of the shop floor,” said Lt. Edward Jensen, AIMD power plants division officer. “The shop’s workflow has improved due to redesigned cells which have created a flow, as opposed to a batching layout.”

The new cells comprise engine disassembly, inspection, cold section assembly hot section assembly, final assembly and final build-up. Also, specific maintenance responsibilities are posted in each cell.

“The team worked with engine mechanics and civilian artisans to layout the most efficient method for performing standard work procedures within each cell while establishing visual management aids,” said Jensen.

“Based on the recent process improvements, we project that engine repair time will decrease from 468 hours to 233 hours,” said Erb.

In addition to the cell redesigns, the J-52 community required assistance meeting increased Fleet operational requirements, due to recent mishaps. In March 2002, Chris Cardinal, power plants division, supply support supervisor, along with other contractors, was hired to help produce more engines to meet the Fleet’s needs.

“Chris immediately recognized areas for improvement,” said Jensen. “He established a kitting method for every engine that enters the shop. Through this innovative process, all required assembly parts and components removed from a disassembled engine are turned in to one area. Then, Chris and his crew replace the worn parts, order new parts as necessary, and assemble a cart which houses all the required parts. Now, when the artisans are ready to assemble an engine, they work from a cart with all the required parts.”

This kitting process reduced the time to collect all necessary components to begin reassembling an engine.

### **Avionics Division**

In the AIMD 600 division transmitter shop, maintainers applied Lean concepts to improve standardized workflow and increase efficiency. Some of the improvements include:

- ◆ Scheduled pickup and delivery with tactical jamming system (ALQ-99) pod pool drivers to permit supervisors to plan the workday and manpower allotment around the requirements and deliveries.

- ◆ A dedicated work-center storekeeper position was established to manage the awaiting parts locker, track outstanding transmitter documents, depot level consumables and provide training in supply procedures. In the past, work-center technicians handled these functions, limiting the maintenance effort.

- ◆ Consolidated automated support system (CASS) work centers were set up. These were previously separate branches with different manpower and workload requirements. Now, working under one common branch chief ensures that personnel and support equipment are employed with maximum effectiveness and efficiency.

“The biggest achievement is growth of the culture of continuous process improvement within the work center,” said Lt. Scott Levkulich, AIMD avionics division officer. “AIRSpeed concepts are a topic of weekly training sessions, and we constantly so-

licit process improvement ideas from all hands. Changing the mentality of Sailors and Marines used to the old ways of doing business is significant and cannot be overemphasized.”

Other on-going improvements in the avionics division include:

- ◆ data collection for future improvements
- ◆ transitioning from “working the backlog” to a pull demand system of production, and
- ◆ establishing an accurate method to forecast Fleet requirements based on historical repair data.

### **Airframes Division: Pod Pool and Canopies**

The AIMD airframes division recently transitioned I-level corrosion control and composite repair to the pod maintenance facility. This intermediate-level repair decision increased the ALQ-99 ready-for-use rate from 34 percent to 89 percent. Also, increased knowledge by the maintainers in honeycomb repair—installation and use of the oven to dry out oil-soaked radomes—has increased the ready-for-use rate from 25 percent to 75 percent.

“In October 2003, radomes (bottom half of the pod) and hardbacks (top half) were spread throughout the work center, since we lacked corrosion



*Naval Air Station Whidbey Island, WA.—Aviation Electronics Technician 3rd Class Leon Church of NAS Whidbey Island Aircraft Intermediate Maintenance Detachment gets an aircraft hardback ready for preservation. U.S. Navy photo by Photographer's Mate 1st Class John D. Hamill*

## **NAS Whidbey Island** *(Continued from page 7)*

and advanced composite repair experience,” said AM2 (AW) Anthony Pluhar, AIMD 500 division. “Our first goal was to slow and stop the corrosion. We accomplished that and have been able to reduce the backlog from over 100 hardbacks to four.”

Due to backordered canopies for the EA-6B community, NAVAIR Depot Jacksonville required help to keep up with the Fleet demand. To assist, members of AIMD Whidbey Island received EA-6B canopy glass replacement training at NAVAIR Depot Jacksonville and then stood up a canopy shop in February 2003. The new shop turns around canopies in five to seven days. AIMD has repaired 71 canopies to date and continues to fill backorders while also stocking supply shelves.

“This expanded capability contributes to \$3.9 million in beyond capability of maintenance cost avoidance supporting cost-wise readiness,” said Lt. Ed Rancourt, AIMD airframes division officer.

“I have found that as more Sailors, Marines and contractors become aware of the benefits and goals of AIRSpeed, they become eager to apply its theories to their own shops. They want formal training,” said Cmdr. Erb. “Many of the work-center supervisors have started to apply Lean and Six Sigma principles without waiting for an ‘official’ AIRSpeed event; they just do it!”

### **Keys to Success**

One of the keys to success for AIMD and the supply department at Whidbey Island is the relationship between organizations. Each organization is closely integrated, and the OICs share information daily.

“The relationship between ASD and AIMD is fantastic,” said Cmdr. David Cruz, NAS Whidbey Island wing supply officer. “This stems from each organization’s ingrained understanding that both possess a single ultimate goal of providing maximum possible readiness to the warfighting community.”

“AIMD and supply host weekly triad meetings with each type wing in order to ensure a free flow of information,” said Erb. “The supply officer and I share the same office space. You could not ask for better communication or teamwork.”

### **Future for NAVRIIP/AIRSpeed**

The outlook of AIRSpeed and NAVRIIP initiatives is positive, driving toward increasing A-RFT at NAS Whidbey Island.

“My primary focus is to identify and develop a correlation between supply support and A-RFT,” said Cruz. “Current tools and metrics have improved the relationship to readiness, but there is still work to be done. The benefits we have realized have fostered the anticipation of continued efficiencies with AIRSpeed.”

AIMD is committed to finding additional areas for efficiencies to further cost-wise readiness. “We will focus on improvements at AIMD that tie more directly to their effect on A-RFT for the Naval Aviation Enterprise,” said Erb. “As AIMD personnel see improvements brought by AIRSpeed implementation in other work centers, they want to get AIRSpeed moving in their own shops. Everyone is asking for training.”



*Naval Air Station Whidbey Island, WA.— Aviation Machinist's Mate 1st Class David Lawrence of Electronic Attack Squadron 129 works on a check-valve, in the engine cavity of an EA-6B Prowler. U.S. Navy photo by Photographer's Mate 1st Class John D. Hamill*

## **NAE/NAVRIIP/AIRSpeed Leadership:**

### **Vice Adm. James Zortman**

Commander, Naval Air Forces  
NAE Chief Executive Officer

### **Vice Adm. Wally Massenburg**

Commander, Naval Air Systems Command  
NAE Chief Operating Officer

### **Rear Adm. Denby Starling**

Commander, Naval Air Forces, Atlantic Fleet  
CFT Readiness/NAVRIIP

### **Rear Adm. George Mayer**

Chief of Naval Air Training and Commander, Navy Region South  
CFT Training

### **Rear Adm. Thomas Kilcline**

Director, Air Warfare Division  
CFT Finance

### **Capt. Mike Hardee**

NAVRIIP Chief of Staff  
Enterprise AIRSpeed Project Officer

### **NAVRIIP Web site:**

<http://www.airpac.navy.mil/navriip>

### **Enterprise AIRSpeed Web site:**

<http://logistics.navair.navy.mil/airspeed>

### **MyNAVAIR Web site:**

[mynavair.navair.navy.mil](http://mynavair.navair.navy.mil) (Portal for NAVRIIP documents)

For more information on NAVRIIP and AIRSpeed, link to [www.airpac.navy.mil/navriip](http://www.airpac.navy.mil/navriip) or call 301.757.1487. Contact NAVAIR Public Affairs for distribution list information, or for content suggestions. Email: [navairpao@navy.mil](mailto:navairpao@navy.mil) or Telephone: 301.757.1487